

Appl. No. : **10/799,529**
Filed : **March 11, 2004**

REMARKS

Applicants have amended claims 1-3, 16-18, 29-33, 40-43, 45-47, and 52, and have added new claims 59-62. Claims 48-51 remain withdrawn as they are drawn to non-elected species, although Applicants have amended claims 48-50 to reconcile their language with the amendments made to the pending claims. Applicants maintain that claims 48-50 will be considered once the Examiner finds the generic claim directed to their subject matter to be patentable. Applicants have cancelled claims 34-39, and 53-58 without prejudice to, or disclaimer of, the subject matter contained therein. Accordingly, claims 1-21, 29-33, 40-47, 52, and 59-62 remain pending, while claims 48-51 remain withdrawn.

Applicants respectfully submit that the amendments to the claims are fully supported by the specification as originally filed and do not introduce any new matter.

- The preamble of claims 1 and 40 is amended so that these claims now depend from claim 29.
- The term “biological system” in the claims is replaced with “bacteria or yeast.” Support for this amendment is found throughout the specification, for example at Paragraph [0054], first sentence.
- The term “fermentation product” in claims 1-3 and 29 and the term “peptide product” in claims 40-43 and 46-50 are replaced with “post-fermentation mixture” to better describe the product obtained from the fermentation. Support for this amendment is found throughout the specification, for example at Example 1, Paragraph [0064], where the fermentation product is the mixture obtained after fermentation, and Paragraph [0074] where the product of fermentation is shown to have proteins.
- Support for new claim 59 is found throughout the specification, for example at Paragraphs [0030] and [0054].
- Support for new claim 60 is found throughout the specification, for example in the originally filed claim 1.
- Support for new claim 61 is found throughout the specification, for example in the originally filed claims 1 and 19.

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- Support for new claim 62 is found throughout the specification, for example in the originally filed claim 20.

Applicants have reviewed the Examiner's objections and rejections set forth in the Office Action of April 23, 2007 and fully respond below.

Rejections under 35 U.S.C. § 102(b)

Claims 1-3, 7, and 16 stand rejected under 35 U.S.C. § 102(b) for allegedly being anticipated by Brucato et al. (USP 6,100,072). Claims 1-3, 6, 7, 10, 12, 13, 15 and 16 stand rejected under 35 U.S.C. § 102(b) for allegedly being anticipated by Van Wijnendaele et al. (USP 4,683,294). Claims 1-3, 6-8, 10, 12-17, 29-34 and 36-38 stand rejected under 35 U.S.C. § 102(b) for allegedly being anticipated by Battistoni et al. (USP 3,635,797).

Applicants respectfully traverse. Claims 29 and 59, the two pending independent claims, are directed to a method for accelerating nutrient uptake in bacteria or yeast without a substantially commensurate increase of biomass or increase in biofilm production, respectively. The claimed methods are accomplished by contacting the bacteria or yeast with a mixture of a post-fermentation mixture and a surface-active agent. Claims 1-21, 30-33, and 40-52 depend directly or indirectly from claim 29 and incorporate all of its limitations, while claims 60-62 depend directly or indirectly from claim 59 and incorporate all of its limitations.

Applicants respectfully submit that none of the cited references discloses or teaches a method of accelerating nutrient uptake in bacteria or yeast without a substantially commensurate increase of biomass or increase in biofilm production, either explicitly or inherently. While the cited references teach a fermentation method and disrupting the cellular structure, the references do not teach contacting the post-fermentation mixture with bacteria or yeast to affect the claimed invention.

Because at least one element of the currently pending claims is not present in the cited references, Applicants respectfully submit that the pending claims are not anticipated by the cited references. Therefore, Applicants respectfully request that the Examiner reconsider and withdraw the rejections under 35 U.S.C. § 102(b).

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Rejections under 35 U.S.C. § 103(a)

Claims 1-3, 5-10, 12, 13, 15 and 16 stand rejected under 35 U.S.C. § 103(a) for allegedly being obvious over Van Wijnendaele et al. (USP 4,683,294) in view of “Baker’s Yeast Production,” Chapter 6. Claims 1-3, 6, 7, 10- 13, 15 and 16 stand rejected under 35 U.S.C. § 103(a) for allegedly being obvious over Van Wijnendaele et al. (USP 4,683,294) in view of Pointek et al. (USP 4,683,294).

Applicants respectfully traverse. As discussed above, the present claims are directed to methods for accelerating nutrient uptake in bacteria or yeast without a substantially commensurate increase of biomass or increase in biofilm production. Applicants respectfully submit that the cited references are directed to the fermentation process itself. None of the cited references, either alone or in combination, teach or suggest the claimed methods of contacting bacteria or yeast with the post-fermentation mixture in order to accelerate nutrient uptake without a substantially commensurate increase of biomass or increase in biofilm production. In addition, none of the cited references, either alone or in combination, provides the motivation for the claimed subject matter.

Applicants further submit that a skilled artisan familiar with the teachings of the cited references will not reach the presently claim invention because none of the cited references teaches the step of contacting bacteria or yeast with the post-fermentation mixture in order to accelerate nutrient uptake without a substantially commensurate increase of biomass or increase in biofilm production. Without the benefit of hindsight, the combined teachings of the cited references do not yield the presently claimed invention because none of the references provide the unique steps of the Applicants’ claimed methods that yield the intended purpose. The differences between the teachings of the cited references and the claimed subject matter are beyond mere arriving at the claimed methods by borrowing steps from the various references. The claimed subject matter is an inventive departure from the teachings of the cited references.

Consequently, the cited references do not render the present claims obvious. In view of the above, Applicants respectfully request that the Examiner reconsider and withdraw the rejections 35 U.S.C. § 103(a).

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Rejections under 35 U.S.C. § 112, Second Paragraph

Claims 1-21, 29-47, 52, and 56-58 stand rejected under 35 U.S.C. § 112, second paragraph, for allegedly being indefinite.

The Examiner alleges that the terms “biological system” in claims 29-39 and “fermentation product” in claims 1 and, by dependence, claims 2-21, 29-47, and 52-58, are vague and indefinite. Applicants have amended the claims and have replaced the term “biological system” with “bacteria or yeast.” Applicants have also replaced the term “fermentation product” with “post-fermentation mixture.”

Applicants respectfully submit that the new terms are definite and particularly point out the subject matter which Applicants regard as the invention. In view of the above, Applicants respectfully request that the Examiner reconsider and withdraw the rejections under 35 U.S.C. § 112, second paragraph.

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CONCLUSION

Applicants have amended claims 1-3, 16-18, 29-33, 40-43, 45-47, and 52, and have added new claims 59-62. Applicants have cancelled claims 34-39, and 53-58 without prejudice to, or disclaimer of, the subject matter contained therein. Accordingly, claims 1-21, 29-33, 40-47, 52, and 59-62 remain pending, while claims 48-51 remain withdrawn.

Applicants have endeavored to respond to all of the Examiner's objections and rejections set forth in the Office Action of April 23, 2007. Applicants respectfully submit that the claims as amended herewith are patentable and request a notice to that effect. Applicants invite the Examiner to call the undersigned if any issue can be resolved through a telephonic discussion.

Applicants have herewith submitted a fee in the amount of \$60.00 for a one month extension of time (small entity), extending the time to file a timely respond to August 23, 2007.

Respectfully submitted,

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Dated: August 22, 2007

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